

## ABSTRACT OF THE DISCLOSURE

A communication network control method for a communication network including a hub and a plurality of user nodes includes adjusting system parameters to maximize communication data rate and minimize bit error rate given current 5 conditions of the wireless channel, current loading of the network, and user constraints. In particular, the method includes transmitting a first plurality of symbols with a first modulation and first forward error correction in a frame from the hub to a first user node, and transmitting a second plurality of symbols with a second modulation and second forward error correction in the frame from the hub to the 10 second user node.

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